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Positive Affect and Group Decision Making

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Abstract

This paper presents a research model and empirical findings on the relationship between positive affect and group decision making. In the research model positive affect is posited to influence an individual's willingness to communicate which in turn improves group decision making. Group cohesion is posited as moderating the relationship between positive affect and willingness to communicate. Results from an experiment involving teams in a group systems support (GSS) environment support the hypothesized relationships.

Introduction

The purpose of this paper is to examine the relationship between positive affect and group decision making. Two bodies of research, psychological studies of emotions (positive affect), and group decision making will be examined and an attempt will be made to show a connection between them. While there have been many empirical studies in each area separately there has been little attempt at integration between the two. Towards this end, this paper examines the effect of emotions on the group decision making process.

Research Model

This research looks at four constructs: positive affect, willingness to communicate, group cohesion, and improved team decision making. Positive affect can be seen as an emotional state. To view affect functionally, first view an individual as residing in a state of being. This state of being has a certain value for that individual. Whenever an individual changes from one state of being to another, there is a corresponding change in value. Changing from a less valued to a more valued state is accompanied by a positive affect. Willingness to communicate is a measure of how prone an individual is to talk with others. Key Factors include the degree to which an individual is inclined to initiate in conversations with others, and how receptive they are to engage in persuasive conversations with others. Group cohesion is a moderating factor that determines how willing the group is to stick together (Steiner, 1972). Improved group decision making is the increase in the quality of the performance of the team. Key Factors include more participation and greater knowledge.

Empirical studies have shown that having a positive affect state can cause individuals to be more likely to initiate conversations with others and be more receptive to persuasive communications from other individuals (Batson et al, 1979; Galizio & Hendrick, 1972; Mackie et al., 1992). This leads to the following hypothesis:

Hypothesis 1: *The greater the intensity of the positive affect, the greater the willingness of an individual to communicate with others.*

Individuals who are more willing to communicate are expected to be better team members and make better team decisions. Groups that communicate and work together will be more effective and will be more likely to make the correct decisions regarding group performance and outcomes (Hackman, Brousseau, & Weiss, 1976). Groups with more open communication and a high participation will make higher-quality decisions than groups with closed communication and low participation (Harper & Askling, 1980). These studies provide for the following hypothesis:

Hypothesis 2*: Willingness to communicate will be positively related to improvement in decision making.*

Cohesion is hypothesized to moderate the effect of positive affect on willingness to communicate. Positive affect is likely to have an influence on willingness to communicate in groups with low levels of cohesion but is unlikely to have an effect on groups with high levels of cohesion. This leads to the following hypothesis:

Hypothesis 3*: Cohesion will moderate the relationship between positive affect and willingness to communicate.*

Method

Twenty groups of four participated in the study for a total of eighty participants. Positive affect was introduced in half the participants. In this experiment, word lists and a video tape were used to elicit a state of positive affect. The word lists were adapted from Teasdale and Taylor (1981) and consisted of a series of upbeat statements shown to induce a positive affect state. The video tape was a short (7 minute) segment of a humorous television program (Dick Clark's TV Bloopers). The use of a video tape to induce positive affect was found by Oaksford, Grainger, Morris, and Williams (1996) and by Gouaux (1971) to be very effective.

Participants were given a case that required groups to assess a situation, generate alternatives, and vote on the best course of action (White, 1996). The task had a correct solution, and due to this, decision making could be measured in terms of quality (White, 1996).

Data was collected through questionnaires and through the use of the GSS system. Individual affective tone was measured with the Job Affect Scale (JAS) (Brief et al, 1988). The affective tone of the group was measured by aggregating the individual measures of affect and testing for consistency in affect within groups. This procedure produced an aggregate measure of the positive affective tone of the work group.

The level of cohesion within the group was tested using Chin, Salisbury, and Gopal's (1996) cohesion scale. Individual responses were aggregated to derive group scores.

The frequency of communication between group members was determined from transcripts of the sessions available through the GSS. Communication was measured by counting the number of comments and/or ideas generated by each group during the GSS session.

A score for individual decision making, in terms of quality, was calculated by scoring each participant's vote for the best solution to the case.

Findings

Cronbach's alphas for JAS, Cohesion, and Adjective Check List instruments were .6068, .9569, and .9519 respectively. The .6068 value for the JAS is marginal and might be related to the limited sample size. Analysis of Variance (ANOVA) was used to determine if the treatment induced a state of positive affect among subjects. The treatment did induce a state of positive affect in the participants. Subjects in the treatment groups scored significantly higher on the JAS than did subjects in the control groups. The difference was significant at a .05 level.

Partial Least Squares (PLS) was used to examine the relationships between positive affect, willingness to communicate, cohesion, and decision making. The results of this analysis showed that all hypotheses were significant to at least a .01 level. These relationships are shown in Figure 1 and Table 1.

FIGURE 1

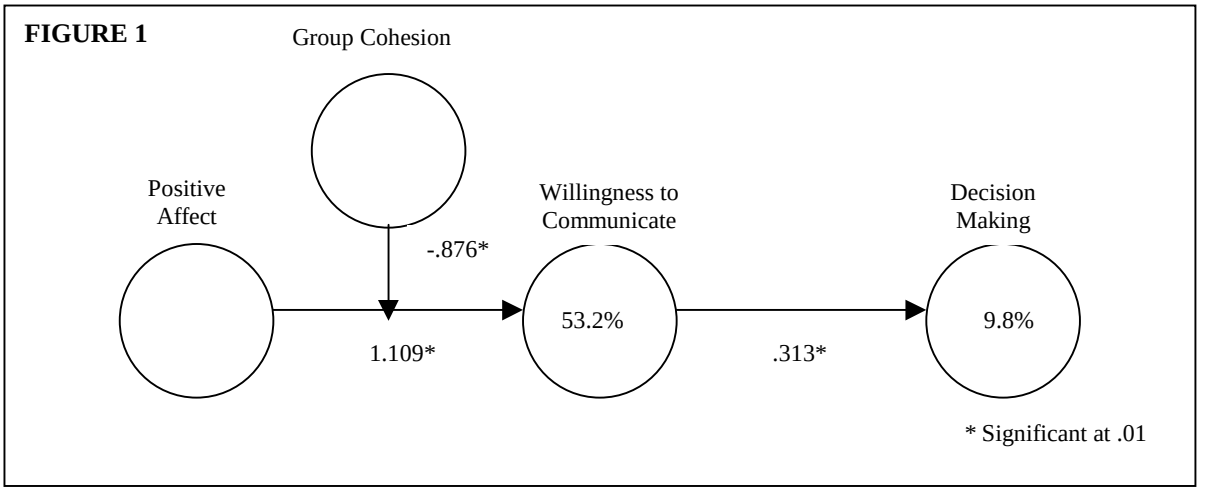

TABLE 1

Path Coefficients Table (T-Statistic)
(Significant Relationships are Shown in **Bolded** Type)

	Pos. Aff	Communic	Dec. Mak	CohxPA
Pos. Aff	0.0000	0.0000	0.0000	0.0000
Communic	**4.5915**	0.0000	0.0000	**-2.9966**
Dec. Mak	0.0000	**2.4404**	0.0000	0.0000
CohxPA	0.0000	0.0000	0.0000	0.0000

Interpretation of the Figure 1 is as follows: paths (the numbers associated with the arrows) can be interpreted as standardized beta weights in a regression analysis, while the numbers in the circles represent the percent of explained variance for each dependent variable.

Conclusion & Discussion

The intent of this paper was to examine how positive affect influences team decision making. Negative affect was not incorporated into the model due to inconsistent results in previous studies (Thompson, Cowan, & Rosenhan, 1980; Aderman, 1972; Cunningham, Steinberg, & Grev, 1980). Analysis showed that a state of positive affect had an impact on the willingness of individuals to communicate which in turn had a positive impact on the quality of group decisions. Group cohesion was also shown to have an inverse impact on the relationship between positive affect and willingness to communicate.

Bibliography

References available upon request from the first author.